

Attorney's Docket No.: 07419-023001

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Marcotte et al. Art Unit : 1631  
Serial No. : 09/493,401 Examiner : Shubo Zhou, Ph.D.  
Filed : January 28, 2000  
Title : COMBINED COMPUTATIONAL METHODS FOR DETECTING PROTEIN  
FUNCTION AND PROTEIN-PROTEIN INTERACTIONS FROM GENOME  
SEQUENCES

Commissioner for Patents  
P.O. Box 2327  
Arlington, VA 22202

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JUL 15 2002

PETITIONS OFFICE

RESPONSE AND AMENDMENT

Sir:

Responsive to the non-final Office Action mailed March 15, 2001, Applicants respectfully request entry of the amendments and consideration of the remarks set forth herein.

The response was initially due June 15, 2001. On April 4, 2002, under separate cover, Applicants filed a petition under 37 CFR §1.137(b), with the appropriate fee, to revive the above-referenced patent application, which went abandoned on June 15, 2001. The application was abandoned for failure to respond to the non-final Office Action mailed March 15, 2001, a copy of which is enclosed. Applicants note that at the time the petition under 37 CFR §1.137(b) was filed, they had not yet received a copy of the non-final Office Action mailed March 15, 2001.

Thereafter, a copy of the Office Action was received upon Applicant's request. However, while a response was being prepared in response to the Office Action, Applicants received a notice dismissing the Petition as it lacked a reply. Applicants herewith request consideration of the present response with the Renewed Petition Under 37 C.F.R. 1.137(b).

## CERTIFICATE OF TRANSMISSION BY FACSIMILE

I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office on the date indicated below.

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- The following documents are also enclosed herewith:
  - Renewed Petition Under 37 C.F.R. 1.137(b);
  - Letter to Official Draftsperson with Formal Drawings;
  - "Version with Markings to Show Changes Made"; and
  - Facsimile cover sheet.

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AMENDMENT

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Please amend the above-captioned application as follows:

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*In the Specification:*

Please replace the paragraph beginning on page 8, line 17, with the following rewritten paragraph:

-- FIGs. 8A-8C are diagrams showing the process and result of the method of phylogenetic profiles. In each case all proteins with identical profiles to the query proteins were found (within the double box) and then all those with profiles that differed by one bit were found (in the second column). Proteins in bold face participate in the same complex or pathway as the query protein and in italics participate in a different but related complex or pathway. Proteins with identical profiles are shown within a box. Single lines between boxes represent a one-bit difference between the two profiles. All neighboring proteins whose profiles differ by one bit from the query protein are shown. Homologous proteins are connected by a dashed line or indented. Each protein is labeled by a four-digit E. coli number, a Swissprot gene name and a brief description. Notice that proteins within a box or in boxes connected by a line have similar functions. Hypothetical proteins (i.e. of unknown function) are prime candidates for functional and structural studies. Proteins in the double boxes in 8(a), 8(b) and 8(c) have, respectively, 11, 6, and 10 ones in their phylogenetic profiles, out of a possible 16 for the 17 genomes available at the time of calculation. --